

Serial No. 09/620,715
Page 2 of 9

IN THE CLAIMS

1. (currently amended) A picture distribution system for distributing picture data from a ~~distribution device~~ one or more sources to a plurality of receiving devices using a distribution device, the system comprising:

a network where a plurality of logical channels are established in a time division multiplex method;

~~a~~ the distribution device distributing picture data from the one or more sources to the plurality of receiving devices via a logical channel designated by a distribution instruction;

~~a~~ the plurality of receiving devices receiving picture data from respective logical channels designated by receiving instructions; and

an allocation unit ~~for~~ allocating respective bandwidth to each of a plurality of logical channels used to transmit picture data according to a number of sources for picture data to be transmitted via the plurality of logical channels, wherein

said allocation unit allocates a predetermined first bandwidth to each of the logical channels when the number of sources for picture data to be transmitted via the plurality of logical channels does not exceed a predetermined threshold number, and when the number of sources for picture data to be transmitted via the plurality of logical channels exceeds the threshold number said allocation unit allocates the first bandwidth to each of a ~~part~~ subset of the logical channels and a predetermined second bandwidth, which is obtained by dividing the first bandwidth by a predetermined integer, to each of another ~~part~~ subset of the logical channels.

2. (original) The picture distribution system according to claim 1, wherein said network is a ring-shaped transmission line.

84213124_1

Serial No. 09/620,715
Page 3 of 9

3. (currently amended) The picture distribution system according to claim 1, further comprising a determination unit determining ~~a~~the number of logical channels to be established in said network.

4. (currently amended) The picture distribution system according to claim 1, further comprising ~~an~~the allocation unit allocating respective ~~bands~~bandwidth used to transmit picture data to the plurality of logical channels.

5. (canceled)

6. (currently amended) The picture distribution system according to claim 1, wherein priority is given in advance to the plurality of logical channels, and said allocation unit allocates respective ~~bands~~bandwidth to the plurality of logical channels based on the priority given to each logical channel.

7. (currently amended) The picture distribution system according to claim 1, wherein priority is given in advance to the plurality of receiving devices; and said allocation means allocates respective ~~bands~~bandwidth to said plurality of logical channels based on the priority given to each receiving device.

8. (previously presented) The picture distribution system according to claim 1, wherein

84213124_1

Serial No. 09/620,715
Page 4 of 9

said distribution device generates a receiving instruction according to a received distribution instruction and transmits the receiving instruction to a corresponding receiving device via said network.

9. (currently amended) A distribution device which is used in a picture distribution system for distributing picture data from ~~a distribution device~~ one or more sources to a plurality of receiving devices via a network where a plurality of logical channels are established by a time division multiplex method, comprising:

a distribution unit distributing picture data to ~~a~~ the plurality of receiving devices via a logical channel designated by a distribution instruction, the picture data being received by the receiving devices with a function to receive picture data from a logical channel designated by a receiving instruction ~~via a logical channel designated by a distribution instruction~~; and

an allocation unit for allocating respective bandwidth to the plurality of logical channels used to transmit picture data according to a number of sources for picture data to be transmitted via the plurality of logical channels, wherein

said allocation unit allocates a predetermined first bandwidth to each of the logical channels when the number of sources for picture data to be transmitted via the plurality of logical channels does not exceed a predetermined threshold number, and when the number of sources for picture data to be transmitted via the plurality of logical channels exceeds the threshold number said allocation unit allocates the first bandwidth to each of a ~~part~~ subset of the logical channels and a predetermined second bandwidth, which is obtained by dividing the first bandwidth by a predetermined integer, to each of another ~~part~~ subset of the logical channels.

84213124_1

Serial No. 09/620,715

Page 5 of 9

10. (currently amended) A receiving device which is used as one of a plurality of receiving devices in a picture distribution system for distributing picture data ~~from using a~~ distribution device from one or more sources to a plurality of receiving devices via a network where a plurality of logical channels are established by a time division multiplex method and respective bandwidth is allocated to the plurality of logical channels used to transmit picture data according to a number of sources for picture data to be transmitted via the plurality of logical channels, comprising:

a receiving unit receiving a set of picture data from a logical channel designated by a receiving instruction, the set of picture data being transmitted from a ~~the~~ distribution device with a function to distribute picture data via a logical channel designated by a distribution instruction, wherein

respective bandwidth is allocated as a predetermined first bandwidth to each of the logical channels when the number of sources for picture data to be transmitted via the plurality of logical channels does not exceed a predetermined threshold number, and when the number of sources for picture data to be transmitted via the plurality of logical channels exceeds the threshold number the respective bandwidth is allocated as the first bandwidth to each of a ~~part~~ subset of the logical channels and a predetermined second bandwidth, which is obtained by dividing the first bandwidth by a predetermined integer, to each of another ~~part-subset~~ subset of the logical channels.

11. (currently amended) A picture distribution system for distributing picture data from ~~a distribution device~~ one or more sources to a plurality of receiving devices using a distribution device, comprising:

84213124_1

Serial No. 09/620,715

Page 6 of 9

a network where ~~a~~ fixed-length frames each composed of a plurality of time slots are transmitted;

one or more distribution devices storing first picture data in a first time slot of the fixed-length frame, storing second picture data in a second time slot of the fixed-length frame, and transmitting the fixed-length frame to the network;

~~a~~ the plurality of receiving devices receiving the respective picture data from the first or second time slots of the fixed-length frame according to a receiving instruction; and

an allocation unit for allocating respective bandwidth to a plurality of logical channels used to transmit picture data according to a number of sources for picture data to be transmitted via the plurality of logical channels, wherein

said allocation unit allocates a predetermined first bandwidth to each of the logical channels when the number of sources for picture data to be transmitted via the plurality of logical channels does not exceed a predetermined threshold number, and when the number of sources for picture data to be transmitted via the plurality of logical channels exceeds the threshold number said allocation unit allocates the first bandwidth to each of a ~~part~~ subset of the logical channels and a predetermined second bandwidth, which is obtained by dividing the first bandwidth by a predetermined integer, to each of another ~~part~~ subset of the logical channels.

12. (original) The picture distribution system according to claim 11, wherein if third picture data are requested to be distributed while the first and second picture data are being distributed, said one or more distribution devices store the first picture data in the first time slot of the fixed-length frame, store the second and third picture data in the second time slot of

84213124_1

Serial No. 09/620,715
Page 7 of 9

the fixed-length frame, and transmit the fixed length frame to said network.

13. (currently amended) A picture distribution method for distributing picture data from ~~a distribution device~~ one or more sources to a plurality of receiving devices using a distribution device, comprising:

establishing a plurality of logical channels by a time division multiplex method;
allocating respective bandwidth to the plurality of logical channels used to transmit picture data according to a number of sources for picture data to be transmitted via the plurality of logical channels;
distributing picture data via a logical channel designated by a distribution instruction; and
a-receiving by the plurality of receiving devices ~~receiving~~ respective picture data from logical channels designated by corresponding receiving instructions, wherein
said allocating step allocates a predetermined first bandwidth to each of the logical channels when the number of sources for picture data to be transmitted via the plurality of logical channels does not exceed a predetermined threshold number, and when the number of sources for picture data to be transmitted via the plurality of logical channels exceeds the threshold number said allocating step allocates the first bandwidth to each of a part-subset of the logical channels and a predetermined second bandwidth, which is obtained by dividing the first bandwidth by a predetermined integer, to each of another part-subset of the logical channels.

14. (previously presented) The picture distribution method according to claim 13, further comprising:

84213124_1

Serial No. 09/620,715

Page 8 of 9

determining a number of logical channels to be established according to the number of
sources for picture data to be transmitted via the plurality of logical channels; and
generating the distribution instruction based on the determined number of logical
channels and allocated bandwidth.

84213124_1